

Patent Claims

1. A method for transferring springs (F) into holding means of an assembler, the springs (F) being delivered in a conveying direction by means of a spring conveyor (4, 5) arranged one behind another in a row and being transferred in groups into the holding means of the assembler, by the springs being displaced perpendicularly with respect to the conveying direction by means of a sliding bar (16), characterized in that the spring conveyor (4, 5) transports the springs (F) into the assembler.
2. The method as claimed in claim 1, the springs (F) being transported into the assembler on one end side of the assembler.
3. The method as claimed in either of claims 1 and 2, the sliding bar (16) being displaced along a horizontal path which is predefined by at least one slotted guide track (13), for transferring the springs (F).
4. The method as claimed in one of claims 1 to 3, the sliding bar (16) being removed completely out of the region of the spring conveyor (4, 5) after each transfer.
5. The method as claimed in either of claims 3 and 4, the sliding bar (16) being moved into a service position by being displaced along a curved path of the at least one slotted guide track (13').
6. The method as claimed in one of claims 1 to 4, the sliding bar (16) being pivoted downward toward the spring conveyor (4, 5) in order to reach a service position.

7. A device for transferring springs, which are arranged one behind another in a row along a conveying direction, into holding means (70) of an assembler, the device having a sliding bar (16) for transferring the 5 springs in groups from a spring conveyor (4, 5) into the holding means (70) of the assembler perpendicularly with respect to the conveying direction, characterized in that the spring conveyor (4, 5) protrudes into the assembler.

10 8. The device as claimed in claim 8, the sliding bar (16) being an integral constituent part of the assembler.

15 9. The device as claimed in either of claims 7 and 8, said device having at least one slotted guide track (13), the sliding bar (16) being arranged displaceably along this at least one slotted guide track (13), and it being possible to displace said sliding bar (16) 20 along a horizontal path of this at least one slotted guide track (13) for transferring the springs.

25 10. The device as claimed in claim 9, the at least one slotted guide track (13) having a length which is dimensioned in such a way that the sliding bar (13) can be removed completely out of the region of the spring conveyor (4, 5) after each transfer of springs.

30 11. The device as claimed in either of claims 9 and 10, the at least one slotted guide track (13) having a curved path, and it being possible to move the sliding bar (16) into a service position by displacement along this curved path.

35 12. The device as claimed in claim 11, it being possible to pivot the sliding bar (16) downward toward the spring conveyor in order to reach the service position.

13. The device as claimed in one of claims 7 to 12, the sliding bar (16) having sliding guides (17) for accommodating in each case one spring, each sliding guide (17) having a recess which corresponds to a part
5 of an outer contour shape of the spring which is to be accommodated.

14. The device as claimed in claim 13, the recess being configured in the shape of a partial circle, in
10 particular in the shape of a semicircle.

15. A transfer device for transferring springs (F), which are arranged one behind another in a row along a conveying direction, into holding means of an
15 assembler, the transfer device having a sliding bar (16) for transferring the springs in groups into the holding means (70) of the assembler perpendicularly with respect to the conveying direction, characterized in that the transfer device has at least one slotted
20 guide track (13), and in that the sliding bar (16) is arranged displaceably along this at least one slotted guide track (13), it being possible to displace said sliding bar (16) along a horizontal path of this at least one slotted guide track (13) for transferring the
25 springs.

16. The device as claimed in claim 15, the at least one slotted guide track (13) having a curved path, and it being possible to move the sliding bar (16) into a
30 service position by displacement along this curved path.